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A new Species of Globulina

By H. Hasselbring

Among the parasitic fungi collected at Ithaca during the summer of 1898, an interesting plant bearing a remarkable resemblance to the members of the genus *Erysiphe* was found on leaves of *Antennaria plantaginifolia.* The resemblance, however, is restricted to the habit and superficial appearance of the plant. Microscopic examination at once shows it to belong to a widely different group.

The perithecia are brown and membranaceous, and possess a distinct ostiolum. This at once excludes the plant from the *Perisporiales.* The color of the perithecia might at first lead us to place the plant in the *Sphaeriales,* but other, less artificial characters point to the *Hypocreales* as the proper systematic place for the plant in question. As has been said the perithecia are thin and membranaceous, not carbonaceous as in the *Sphaeriales.* The spores are very slender and filiform, and easily break into shorter portions at the septa. This condition is rare among the *Sphaeriales,* but preëminently characteristic of certain groups of the *Hypocreales.* On account of these characters together with the superficial *Erysiphe*-like habitat of the plant its proper position seems to be in the genus *Globulina* Speg., although it differs in certain characters which will be mentioned below.

Up to the present time two species of *Globulina* are known. The first, *G. erysiphoides,* Speg. was described on leaves of Compositae from Brazil. Spegazzini indicates the peculiar habit of the plant by the specific name which he gave it. *G. Ingae* Pat. occurs on leaves of *Inga pachycarpa,* a leguminous plant from Ecuador. The genus *Globulina,* based upon the first species, is described as lacking the ostiolum, but Lindau questions this fact. The perithecia are colored, and paraphyses are said not to be present.

In view of these facts the present species is peculiarly interesting. It is the first northern species of the genus, and like the Brazilian plant occurs on the leaves of a composite. It has the habit of an *Erysiphe*, the perithecia being superficially seated among the leaf-hairs, with threads of mycelium interwoven among the hairs. The plant differs however, in having brown not brightly colored perithecia with a distinct ostiolum at the apex, and in having paraphyses. With these exceptions, some of which are doubtful on account of the imperfect knowledge of the genus, the plant agrees with the characters of *Globulina* of which it must be considered an undescribed species.

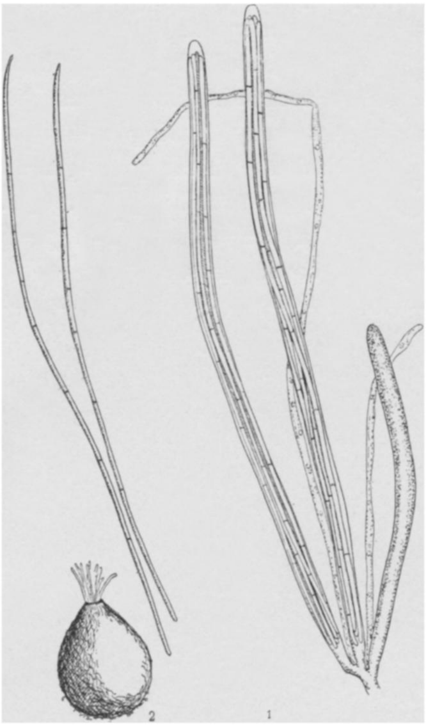

FIG. 1.

Globulina antennariae sp. nov.

Perithecia superficial, scattered, ovate or pyriform, brown membraneous, having a distinct ostiolum: asci cylindrical, slightly narrowed at the ends, mostly somewhat curved, 90–120×4–5 μ; paraphyses flaccid, usually longer than the asci: spores very slender and filiform, septate, hyaline, 90–105 μ long, easily breaking into shorter segments.

A plant having the habit of *Erysiphe*. On leaves of *Antennaria plantaginifolia* Hook. Ithaca, N. Y.

The accompanying cut shows the general appearance of the asci and spores. The asci are born in tufts on the ends of branched fertile hyphae with paraphyses intermixed with them. These tufts often contain many perfect asci together with some immature ones (shown in the cut), and often empty broken shells from which the spores have escaped. Sometimes the upper half or more of an ascus breaks away, leaving the slender spores protruding like long whip lashes. If the cover-glass is tapped gently they may sometimes be made to fall into segments. Fig. 2 of the cut shows the form of a perithecium, with paraphyses exuding under the pressure of a cover-glass.

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